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10/726,995	12/02/2003	Andrew J. Ouderkirk	59415US002	4511

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EXAMINER	
MIDKIFF, ANASTASIA	

ART UNIT	PAPER NUMBER
2882	

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,995	OUDERKIRK ET AL.	
	Examiner	Art Unit	
	Anastasia Midkiff	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 9/5/06, 9/7/06, and 10/5/06
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-11 and 13-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 3, 4, 8, 9, 10, 11, and 13 of copending Application No. 10/726968 (hereinafter '968). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are broader than the claims of application '968 and therefore are anticipated thereby. For example:

- Claim 1 of the instant application is anticipated by claim 1 of '968.
- Claim 2 of the instant application directly corresponds to claim 2 of '968.
- Claim 3: It is well within ordinary skill in the art for an adhesive to contain phosphor material in order to deposit the material in layer form.
- Claim 4 of the instant application directly corresponds to claim 3 of '968.

- The remaining claims directly correspond to each other and will not further be individually specified.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-11 and 13-26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of copending Application No. 10/727,026 (hereinafter '026). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are broader than the claims of application '026 and therefore are anticipated thereby. For example:

- Claims 1 and 20 are anticipated by claims 1 and 18 of '026.
- Claim 2 directly corresponds to claim 2 of '026.
- Claim 3: It is well within ordinary skill in the art for an adhesive to contain phosphor material in order to deposit the material in layer form.
- Claim 4 directly corresponds to claim 3 of '026.
- The remaining claims directly correspond to each other and will not further be individually specified.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5, 6, 8-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US Patent 6,155,699; hereinafter Miller) in view of Fleming et al. (US Patent 6,172,810; hereinafter Fleming), and in further view of Schrenk (US Patent 5,540,978).

With respect to claims 1 and 8: Miller discloses, in figures 2 and 3 and throughout the disclosure, a light source comprising: an LED (12) that emits excitation light; a first multilayer reflector (32,34) that reflects at least a portion of visible light and transmits the excitation light (column 6, lines 17-18; column 6, line 42); and a layer of phosphor material (36) adjacent the multilayer reflector, the phosphor material emitting visible light when illuminated with excitation light. Miller further discloses the multilayer reflector to be a DBR mirror comprised of alternating layers of TiO_2 and SiO_2.

However, Miller fails to teach or fairly suggest the multilayer reflector being flexible, and that the polymeric material resists degradation when exposed to blue, violet or ultraviolet light.

Fleming teaches the substitution of a flexible polymeric multilayer reflector for that of a reflector comprised of alternating layers of TiO_2 and SiO_2 (column 2, lines 5-8; column 6, lines 21-39; column 8, lines 1-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the reflector of Fleming for that of Miller to reduce the cost of the reflector when higher refractive indices are unnecessary.

Further with respect to Claim 1, Schrenk discloses the use of a flexible multilayer reflector comprising polymeric material that resists degradation when exposed to ultraviolet light within a light device (column 2, lines 62-66).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the multilayer reflector of Schrenk in the device taught by Miller and Fleming to maximize the life of the reflector thereby maximizing the life of the device.

With respect to claim 2: Fleming discloses the flexible multilayer reflector comprising polymeric material (column 5, line 17).

With respect to claims 5 and 6: Miller discloses the use of a Gallium Nitride (GaN) die (column 5, lines 14-15). Miller further discloses that the GaN die is configured to emit primary light having a peak wavelength in the blue region. The Examiner notes that while Miller only addresses the peak wavelength emitted by the die, other wavelengths are also present, particularly UV rays. Therefore, Miller discloses excitation light comprising blue and UV light.

With respect to claim 9: Fleming discloses the first flexible multilayer reflector is a polymeric material substantially free of inorganic materials (column 7, lines 38-45).

With respect to claim 10: Miller discloses, in figures 2 and 3 and throughout the disclosure, the first multilayer reflector disposed between the LED (12) and the layer of phosphor material (36).

With respect to claim 11: Miller discloses the first multilayer reflector reflects visible light and transmits UV light or blue light (column 6, lines 17-18; column 6 line 42).

With respect to claim 14: Miller discloses, in figures 2 and 3 and throughout the disclosure, the layer of phosphor (36) is coated on the first multilayer reflector (32,34).

Claims 3, 7, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller and Fleming.

With respect to claims 3, 7, and 15: Miller discloses, in figures 2 and 3 and throughout the disclosure, a light source comprising: an LED (12) that emits excitation light; a first multilayer reflector (32,34) that reflects at least a portion of visible light and transmits the excitation light (column 6, lines 17-18; column 6, line 42); and a layer of phosphor material (36) adjacent the multilayer reflector, the phosphor material emitting visible light when illuminated with excitation light. Miller further discloses the multilayer reflector to be a DBR mirror comprised of alternating layers of TiO_2 and SiO_2.

However, Miller fails to teach or fairly suggest the multilayer reflector being flexible, and that the layer of phosphor material further comprises an adhesive to attach the phosphor layer to the multilayer film.

Fleming teaches the substitution of a flexible polymeric multilayer reflector for that of a reflector comprised of alternating layers of TiO_2 and SiO_2 (column 2, lines 5-8; column 6, lines 21-39; column 8, lines 1-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the reflector of Fleming for that of Miller to reduce the cost of the reflector when higher refractive indices are unnecessary.

Further with respect to Claims 3, 7, and 15, one of ordinary skill in the art would recognize that a phosphor material comprising an adhesive, a phosphor material comprising a binder and an adhesive disposed between the phosphor material and the first reflector are obvious variations of attaching the phosphor layer to the first multilayer film.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a phosphor material comprising an adhesive, a phosphor material comprising a binder or an adhesive disposed between the phosphor material and the first reflector because it allows for secure attachment of the phosphor layer to the multilayer reflector while not impeding the phosphor material from converting emission wavelengths into visible wavelengths.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller, Fleming, and Schrenk, as applied to claim 1 above, and further in view of Weber et al. ("Giant Birefringent Optics in Multilayer Polymer Mirrors" hereinafter Weber).

Miller and Fleming teach most of the elements of the claimed invention, including a first and second thermoplastic polymer.

However, they fail to teach or fairly suggest at least some of the layers are birefringent, and wherein the alternating layers exhibit a z-axis refractive index difference that is no more than 0.5 times the x-axis refractive index, said z-axis being parallel to a thickness of the flexible multilayer reflector, and said x-axis being in a plane of the multilayer reflector.

Weber discloses the use of birefringent layers within a multilayer polymer mirror wherein a z-axis parallel to a thickness of the flexible multilayer reflector has a refractive index difference greater than a refractive index difference of an x-axis in a plane of the multilayer reflector (Abstract) to control the internal Fresnel reflection coefficient and the phase relations that determine optical results of the reflector stack (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include birefringent layers within the device of Miller and Fleming because the birefringent layers increase the reflectivity of the reflector while the incident angle increases thereby minimizing the amount of excitation light that is reflected back into the device.

Further with respect to Claims 4 and 27, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the value of z-axis refractive index difference to be no more than 0.5 times the x-axis refractive index difference, since it has been held that discovering an optimum value of a result effective

variable involves only routine skill in the art. *In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).*

Claims 1-3, 5-8, 10, 11, 13, 15-19, 26, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vriens et al. (US Patent 5,813,753; hereinafter Vriens) in view of Fleming and Schrenk.

With respect to claims 1, 3, 8, and 15: Vriens discloses, in figures 3 and 4 and throughout the disclosure, a light source comprising: an LED (41) that emits excitation light; a first multilayer reflector (37;47) that reflects at least a portion of visible light and transmits the excitation light (column 5, lines 6-7; column 5, lines 51-53); and a layer of adhesive phosphor binder material (containing phosphor grains) adjacent the multilayer reflector, the phosphor material emitting visible light when illuminated with excitation light.

Vriens further discloses the multilayer reflector comprised of alternating layers of high and low refractive material.

However, Vriens fails to teach or fairly suggest the multilayer reflector being flexible and resistant to degradation by blue, violet, or ultraviolet light.

Fleming teaches the substitution of a flexible polymeric multilayer reflector for that of a reflector comprised of alternating layers of high and low refractive material (column 2, lines 5-8; column 6, lines 21-39; column 8, lines 1-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the reflector of Fleming for that of Vriens because it reduces the cost of the reflector when higher refractive indices are unnecessary.

Further with respect to Claims 1 and 8, Schrenk discloses the use of a flexible multilayer reflector comprising polymeric material that resists degradation when exposed to ultraviolet light within a light device (column 2, lines 62-66).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the multilayer reflector of Schrenk in the device taught by Vriens and Fleming to maximize the life of the reflector thereby maximizing the life of the device.

With respect to claim 2: Fleming discloses the flexible multilayer reflector comprising polymeric material (column 5, line 17).

With respect to claims 5 and 6: Vriens discloses the excitation light to comprise UV/blue light (column 3, line 19).

With respect to claim 7: Vriens discloses the phosphor material further comprising a binder material (35;45).

With respect to claim 10: Vriens discloses, in figure 4 and throughout the disclosure, the first multilayer reflector (47) disposed between the LED (41) and the layer of phosphor material (44).

With respect to claim 11: Vriens discloses the first multilayer reflector reflects visible light and transmits UV light or blue light (column 5, lines 6-8).

With respect to claim 13: Vriens and Fleming show all the limitations as shown above.

However, they fail to teach or fairly suggest the multilayer reflector reflects yellow or red and transmits UV, blue or green light.

It is well known in the art that reflectors are tunable, meaning that the desired wavelengths reflected are dependent upon the desired output and the materials selected to manufacture the reflector to produce that output.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a reflector that reflects yellow or red for the reflector of Vriens and Fleming because it would allow for better conversion of emission light into visible light thereby reducing the amount of phosphor necessary in the device.

With respect to claim 16: Vriens discloses, in figures 3 and 4 and throughout the disclosure, the layer of phosphor material (phosphor grains) is a discontinuous layer of phosphor material.

With respect to claim 17: Vriens discloses, in figures 3 and 4 and throughout the disclosure, the layer of phosphor material is a plurality of dots of phosphor material (34;44).

With respect to claim 18: Vriens and Fleming show all the limitations as shown above. Vriens further discusses the importance of the size of the phosphor grain that is selected (column 3, lines 35-37).

However, Vriens and Fleming fail to teach or fairly suggest each dot having an area of less than $10{,}000\mu m^2$.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a phosphor dot having an area of less than 10,000μm^2 within the device disclosed by Vriens and Fleming because it maximizes the conversion of UV/blue light into visible light using a minimum amount of phosphor.

With respect to claim 19: Vriens discloses the plurality of dots comprise phosphor material that emits red, green and blue light when illuminated with excitation light (column 3, lines 52-56).

With respect to claim 26: Vriens discloses at least a first phosphor dot emitting light at a first wavelength and a second phosphor dot emitting light at a second wavelength different than the first wavelength (column 3, lines 54-55).

With respect to claims 28 and 29: Vriens discloses a phosphor layer comprising phosphor particles dispersed within a polymeric binder (Figures 2-5).

Claims 1, 8, 20, 21, 22, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vriens (US Patent 4,882,617) in view of Vriens '753, Fleming, and Schrenk.

With respect to claims 1, 8, and 20: Vriens '617 discloses, in figures 5, 6 and 8, discloses a light source, comprising: a source (2) that emits UV radiation (column 8, line 30); a first multilayer reflector (22) that reflects at least a portion of visible light and transmits the UV light (column 5, line 68-column 6, line 2); a layer of phosphor material (18) adjacent the first multilayer reflector, the phosphor material emitting visible light when illuminated with the UV radiation; and a multilayer interference reflector (23),

wherein the layer of phosphor material is disposed between the first flexible multilayer reflector and the multilayer interference reflector.

However, Vriens '617 fails to teach or fairly suggest the source that produces the UV radiation to be an LED.

Vriens '753 discloses a UV radiation source to be an LED (41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the LED for the UV source of Vriens '617 because it reduces the size of the device while still producing UV radiation.

Vriens '617 further discloses the first multilayer reflector comprised of alternating layers of TiO_2 and SiO_2 (column 7, lines 37 and 41).

However, Vriens '617 fails to teach or fairly suggest the first multilayer reflector being flexible and resistant to degradation by blue violet or ultraviolet light.

Fleming teaches the substitution of a flexible polymeric multilayer reflector for that of a reflector comprised of alternating layers of high and low refractive material (column 2, lines 5-8; column 6, lines 21-39; column 8, lines 1-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the reflector of Fleming for that of Vriens '617 and '753 because it reduces the cost of the reflector when higher refractive indices are unnecessary.

Further with respect to Claims 1, 8, and 20, Schrenk discloses the use of a flexible multilayer reflector comprising polymeric material that resists degradation when exposed to ultraviolet light within a light device (column 2, lines 62-66).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the multilayer reflector of Schrenk in the device taught by Vriens '617 and '753 and Fleming to maximize the life of the reflector thereby maximizing the life of the device.

With respect to claim 21: Vriens '617 discloses the interference reflector reflects the excitation light onto the phosphor material and transmits the visible light (column 6, lines 8-13).

With respect to claim 22: Vriens '617 and '753 and Fleming show all the limitations as shown above.

However, they fail to teach or fairly suggest the multilayer reflector reflects yellow or red and transmits UV, blue or green light.

It is well known in the art that reflectors are tunable, meaning that the desired wavelengths reflected are dependent upon the desired output and the materials selected to manufacture the reflector to produce that output.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a reflector that reflects yellow or red for the reflector of Vriens and Fleming because it would allow for better conversion of emission light into visible light thereby reducing the amount of phosphor necessary in the device.

With respect to claim 24: Fleming discloses the first flexible multilayer reflector is a polymeric material substantially free of inorganic materials (column 7, lines 38-45).

With respect to Claim 25: Schrenk discloses the layers are birefringent (Column 6, Lines 43-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include birefringent layers within the device of Vriens '617 and '753 and Fleming because the birefringent layers increase the reflectivity of the reflector while the incident angle increases thereby minimizing the amount of excitation light that is reflected back into the device.

Response to Arguments

Applicant's arguments filed 18 August 2006, with respect to Double Patenting Rejections over Application numbers 10/726,998 and 10/727,026, and 35 USC 103(a) rejections have been fully considered but they are not persuasive.

With respect to Double Patenting rejections of Claims 1-19 as being unpatentable over claims 1, 2, 3, 4, 8, 9, 10, 11, and 13 of copending Application No. 10/726968, and of Claims 1-11 and 13-26 as being unpatentable over claims 1-33 of copending Application No. 10/727,026, the Examiner's reply is the same as in the previous Office Action mailed 18 May 2006.

Therefore the Double Patenting Rejections mentioned in the above paragraph are maintained.

With respect to 35 USC 103(a) rejections of Claims 1, 2, 3, 5, 6, 8-11, 14, and 15 as being unpatentable over Miller in view of Fleming, and of Claims 1, 2, 5-8, 10-13, 16-19, and 26 as being unpatentable over Vriens ('753) in view of Fleming and Schrenk, the Applicant asserts that there is no motive to combine the reference of Fleming with that of Miller. The Examiner respectfully disagrees.

In the previous action, the motivation for combining Fleming with Miller has been recited as reducing the cost of the reflector when higher refractive indices are necessary. The Applicant has not positively asserted that the polymeric reflector of Fleming is more expensive than the titanium reflector of Miller, rather, the Applicant has stated that *some* polymeric reflectors *may* be cheaper than *some* metal reflectors, regardless of material costs or number of layers in the reflector stack.

Further with respect to the 103(a) rejections listed in the above paragraph, the Applicant asserts that Fleming is non-analogous art. The Examiner respectfully disagrees.

Fleming is concerned with a reflector made of a stack of layers that reflects incident light of any desired wavelength. This is the same function as the reflector of Miller, and, as such, is analogous art, solving the same problem of reflection of incident light by using a multilayer reflector.

Additionally, the Applicant asserts that the Schrenk reference does not teach a reflector with an extended lifetime over the reflector of Vriens '753. The Examiner respectfully disagrees.

Polymers resistant to UV light would be more durable than those without such protection, making the reflector of Schrenk longer lasting and more reliable than that of Vriens '753.

With respect to Claims 3 and 15, the Applicant asserts that the epoxies of Miller, Schrenk, and Vriens '753 do not constitute an "adhesive" material. The Examiner respectfully disagrees.

Although the Examiner has noted the Applicant's reference in the Encyclopedia of Polymer Science and Engineering, the Applicant has not positively asserted that the epoxies of the cited prior art references are not adhesive, only that some epoxies are not adhesives, per se. Nevertheless, the rejection does not rely upon Miller or Fleming for the adhesive material, rather that the use of an adhesive material to bind the polymer to the reflector would be obvious to one of ordinary skill in the art at the time of the invention, adhesives being well-known binders and means of secure attachment, as well as being unobtrusive to the wavelength conversion of light by the phosphor material (see Page 8 of the prior action). The examples listed in the prior action for Miller and Schrenk were intended only as exemplary portions of the references where epoxies were used to perform an adhesive, or binding, function. The Examiner also notes that the phosphor binder of Vriens acts as an adhesive binder for the phosphor grains, and for the device as a whole (Figures 2-5).

Therefore the rejections of the Claims under 35 USC 103(a) are maintained.

Applicant's arguments, see Applicant's Amendment, filed 18 August 2006, with respect to Double Patenting Rejections of Claims 1-19 over the Claims of Application 10/727,072 have been fully considered and are persuasive. The Double Patenting Rejections of Claims 1-19 over the Claims of Application 10/727,072 have been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anastasia Midkiff whose telephone number is 571-272-5053. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASM
10/27/06

EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER